USE OF SHATAVARI (ASPARAGUS RACEMOSUS WILLD.) AND YASHTIMADHU (GLYCYRRHIZA GLABRA LINN.) IN TREATMENT OF PEPTIC ULCER

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ABSTRACT
Peptic ulcer is a very common disease of now days. The most common cause is stress. In Ayurveda Vata, Pitta or both are explained as causative factor of peptic ulcer. In short peptic ulcer can be described as ulcers occurring in stomach and duodenal wall either due to discontinuation of mucosal lining or excess secretion of acid or due to infection by Helicobacter pylori bacteria. So we need those drugs which are Shita in Virya; Vata, Pitta shamaka and have antibacterial activity. All these properties are present in Shatavari (Asparagus racemosus Willd.) and Yashtimadhu (Glycyrrhiza glabra Linn.) so these are most suitable drugs.

KEY WORDS: Peptic ulcer, Mucosa, Antibacterial activity.

INTRODUCTION
Healing from any condition requires knowledge of cause (nidana) and pathology (samprapti). The cause of most ulcers lies in a mixture of vata and pitta provoking factors. According to modern aspect Peptic ulcer can be explained as imbalance between the aggressive (acid, pepsin, bile and H.pylori) and the defensive (gastric mucus and bicarbonate secretion, prostaglandins, nitric oxide, innate resistance of the mucosal cells) factors.[1] The ulcer in the stomach is called gastric ulcer and ulcer of the intestinal tract is known as duodenal ulcer as it occurs in duodenum. Both grouped together is called peptic ulcer. In Ayurveda we can correlate duodenal ulcer with “Parinama Shoola” and gastric ulcer with “Annadrava Shoola”.

Parinama Shoola can be explained as pain which occurs during digestion process of food. When Vata aggravates due to its causative factors like dry food etc. in its digesting process it

becomes dominant and surrounds the *Pitta* and *Kapha* and causes pain. This pain is called *Parinama Shoola*.\(^2\)

*Annadrava Shoola* is pain which occurs after digestion of food, during digestion or before digestion i.e. during anytime. In *Annadrava Shoola* pain occurs continuously and patient feels restless. He feels rest when he vomits.\(^3\) The point prevalence of peptic ulcer was 4.72% and life time prevalence was 11.22%. The duodenal to gastric ulcer ratio was 17.1:1.\(^4\)

**ETIOLOGY**

1. *Vata* type ulcers occur secondary to the stress of overwhelm and anxiety. This usually occurs in the presence of *vata* vitiating lifestyle consisting of stressful life changes, a lack of routines and a diet of cold, dry and light foods such as salads and corn breads.

2. *Vata* type ulcers occurs secondary to dryness of the mucous membranes of the stomach and small intestine. *Ayurveda* describes this as *vata* entering the *rasa dhatu* of the *Annavaha shrotasa*. A dry membrane is unable to protect the underlying tissue from the normal or even low levels of acid present in the digestive system. The result is that the acids burn the tissue resulting first in hyperacidity (a poor term as there is no excess acid) and later in ulceration.

3. *Pitta* type ulcers occur secondary to the intensity of stress. This usually occurs in the presence of *pitta* vitiating lifestyle consisting of a highly focused intensity on goal achieving and a diet of hot, spicy foods.

4. *Pitta* type ulcers result from excess acid secretions. These secretions overwhelm the protective mucous secretions of the intestinal lining. The result begins as the burning of hyperacidity and later results in ulceration. This is a condition of *pitta* entering the *rasa dhatu* of the *Annavaha shrotasa*.

Excess acidity or hyper acidity leads to peptic ulcer. Hyperacidity is caused by an increase in the hydrochloric acid in the stomach. The acid secreted by the cells on the lining of the stomach erodes the inner lining. Consumption of highly spiced foods, over eating, coffee, alcohol and smoking are the main factors contributing to the condition. Now days stress is also becoming an important causative factor.
TREATMENT

Vatic ulcer is healed by rebuilding the mucous membrane lining the stomach and intestinal wall. Following a moist or oily diet is beneficial. Cooked foods and herbs with a demulcent quality help hydrate the rasa dhatu. Herbs such as licorice etc. not only provide symptomatic relief but long term healing as well. Treatment of the whole person is always required and hence, the mind must be treated and a proper lifestyle restored.

Paittic ulcer is healed by reducing the acid secretions as well as rebuilding the mucous lining. A cooling diet is one that reduces acid secretions. By avoiding hot spices and taking in foods with a sweet and bitter taste, acid secretions are minimized. In addition, the mucous membrane should be rebuilt utilizing moist, oily foods with a sweet taste. Hence, combinations of bitter and sweet herbs are most beneficial. Bleeding if present can be managed with haemostatic herbs such as praval pishti or red raspberry. Praval pishti has the added benefit of being an antacid. As mung dal also has antacid properties and is relatively easy to digest, a diet of mung dal or kitcheree rapidly improves the situation.

The person with pitta vitiation should also be encouraged to relax more and adopt less competitive activities. Hence benefit is gained through treating their mind and adopting a healthy pitta pacifying lifestyle i.e. stress reducing drug.

Many cases of ulcers are caused by a combination of vata and pitta factors. Hence, a combined approach is often most beneficial. This approach emphasizes the use of the cool and moist qualities such as those found in the sweet taste. Herbs such as Yashtimadhu (licorice root) and Shatavari pacify both doshas.

Shatavari: Shatavari, Asparagus racemosus, is a climbing plant which grows in low jungles areas through out India. This sweet and bitter herb is particularly balancing to Pitta Dosha.

Asparagus racemosus is an Ayurvedic rasayana, which is mentioned in various ancient Indian texts for the treatment of gastric ulcers, galactagogue, and the stabilization of female hormones. The ulcer-protective effect of the methanolic extract from the fresh roots of the Shatavari extract has been studied in different animal models. It helped prevent mucosal lining of the stomach, by increasing mucus secretion and at the same time keeping the production of acid and Pepsin (an enzyme secreted by the stomach linings) stable. Combined effects of the acid and the Pepsin helped the life span of cells and reduced the
irritation in the stomach linings. On the contrary, the drugs available are called Anti-secretory compounds or Proton Pump inhibitors like Aciphex. They are supposed to reduce acid production, not increase it. Interestingly, most of the patients with Gastro Esophageal Reflux Disease (GERD) usually have low acid production. By suppressing acid production more, we end up putting our digestion in jeopardy and end up not absorbing other nutrients. When compared with a modern drug, metoclopramide, (commonly used in dyspepsia to reduce gastric emptying time) both the drug and the herb showed similar effects in gastric emptying. Also roots of Asparagus racemosus showed considerable in-vitro antibacterial properties comparable with chloramphenicol (a strong antibiotic). Helicobacter pylori is a bacteria known to cause gastric ulcers and GERD. Shatavari helps combat that. Considering all these properties it make perfect sense to use Shatavari for gastric ulcers.

**Botanical name:** Asparagus racemosus Wild.

![Asparagus racemosus](image)

**Family :** Liliaceae

**Effect on the Doshas:** Vata, Pitta shamaka

**Rasa (Taste) :** Madhura (sweet) ,Tikta (bitter)

**Virya (Energy):** Shita (cold)

**Vipaka (Post-Digestive Action):** Madhura

**Parts Used :** Roots (Rhizomes), Shatavari root powder and leaves.\[5\]

**Yashtimadhu**

Yashtimadhu grows in the subtropical and warm temperate regions of the world, chiefly in the Mediterranean and China.
Botanical name: *Glycyrrhiza glabra* Linn.

**Family**: Fabaceae

**Effect on the Doshas**: Vata, Pitta shamaka

**Rasa (Taste)**: Madhura (sweet)

**Virya (Energy)**: Shita (cold)

**Vipaka (Post-Digestive Action)**: Madhura

**Part Used**: Root.[6]

**Active constituents**

The principal constituent of *Yashtimadhu* and the component that gives *Yashtimadhu* its characteristically sweet taste, is called glycyrrhizin (also known as glycyrrhizic acid and glycyrrhizinic acid), a saponin glycoside that is 50 times as sweet as sucrose. Its flavonoid constituents include liquiritigenin and isoliquiritigenin. Glycyrrhizin is a gastroprotective and increases the rate of mucus secretion by the gastric mucosa. Glycyrrhizin is also responsible for the demulcent, expectorant and antitussive properties of *Yashtimadhu* and is beneficial in reducing inflammation in the body.

**Anti-ulcer activity**: *Yashtimadhu* is beneficial in treating acid peptic disease. Scientific studies have shown that its extract reduces gastric acid secretion and inhibits the formation of peptic ulcers. *Yashtimadhu* treats ulcers by accelerating mucin excretion by increasing the synthesis of glycoprotein at the gastric mucosa, prolonging the life of the epithelial cells and antipepsin activity. It is also beneficial in the management of aphthous ulcers or mouth sores. Paste of *Yastimadhu* and *Tila* mixed with oil is used for healing of wounds.[7]
CONCLUSION

Most common cause of ulcers according to Ayurvedic aspect is vata and pitta or both together. So to treat the ulcer we need the drugs which pacify both vata and pitta or drugs which are Shita in Virya and Madhura in Vipaka. Both Shatavari and Yashtimadhu are vata and pitta pacifying herbs and are Shita in Virya and Madhura in Vipaka. Along with Shatavari has ulcer protective effect, it also increases mucous secretion so prevent the mucosal lining of stomach and at last it has antibacterial effect which helps in combating the adverse effect of Helicobacter pylori which is most common cause of ulcer.

Similarly Yashtimadhu is ulcer protective and mucous secreting, so both drugs are very helpful in treating the peptic ulcer.

REFERENCES

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